Appl. No. 10/603,288
Paper dated October 11, 2005
Reply to office action dated August 24, 2005

Amendments to the Claims:

This listing of claims will replace all prior listings of claims in the application.

Listing Of Claims:

Claim 1 (previously presented): A projection device for a motor vehicle, comprising

a reflector,

a light source producing a set of light signals which can be reflected by the reflector,

an exit lens, comprising an entry surface and an exit surface, for producing a light beam, and

a shield disposed between the reflector and the exit lens in order to produce a cutoff in the light beam produced,

wherein the exit lens comprises a central part of the exit surface which encompasses a region of the exit surface intersected by a vertical plane defined by an optical axis of the projection device, and first and second side parts of the exit surface laterally disposed on opposing sides of the central part, and a set of protuberances produced in at least one side part of the exit surface of the exit lens, each protuberance diverting in a given direction a part of the light signals encountering the protuberance, the protuberances being produced solely on the side parts of the exit surface of the exit lens.

Claim 2 (original): A projection device according to claim 1, wherein the diversion directions are directions situated above the cutoff.

Claim 3 (previously presented): A projection device according to claim 1, wherein each protuberance is able to divert some of the light signals encountering the protuberance in a direction corresponding to a gantry point.

Claim 4 (canceled).

Claim 5 (currently amended): A projection device according to claim 1, ~~for a motor vehicle, comprising: a reflector; a light source producing a set of light signals which can be reflected by the reflector; an exit lens having an entry surface and an exit surface, for producing a light beam, the exit lens comprising a set of protuberances produced on at least one side part of the exit surface of the exit lens, each protuberance diverting in a given direction a part of the light signals encountering the protuberance; and a shield disposed between the reflector and the exit lens to produce a cutoff in the light beam produced.~~

wherein the protuberance has a thickness of between 0.2 millimeters and 3 millimeters.

Claim 6 (previously presented): A projection device according to claim 1, wherein the exit lens comprises at least two distinct protuberances diverting some of the light signals in distinct given directions.

Claim 7 (previously presented): A projection device according to claim 1, wherein the exit lens comprises at least two distinct protuberances in each of the first and the second side parts.

Claim 8 (previously presented): A projection device according to claim 1, wherein the exit lens comprises four, six or twelve distinct protuberances.

Claim 9 (previously presented): A projection device according to claim 1, wherein the exit lens comprises several protuberances diverting some of the light signals in the same given direction.

Claim 10 (previously presented): A projection device according to claim 1, wherein each protuberance produced in the exit surface of the exit lens has an end situated at a periphery of the exit lens.

Claim 11 (previously presented): A projection device according to claim 1, wherein the protuberances produced in the exit surface of the exit lens are disposed on the exit surface of the exit lens symmetrically with respect to a vertical axis of the exit lens.

Claim 12 (previously presented): A projection device according to claim 1, wherein at least one of the protuberances is produced in the form of a flute.

Claim 13 (original): An automobile equipped with a projection device according to claim 1.

Claim 14 (canceled).

Claim 15 (previously presented): A projection device according to claim 5, wherein the protuberance has a thickness of between 0.2 millimeters and 2 millimeters.

Claim 16 (previously presented): A projection device according to claim 15, wherein the protuberance has a thickness of between 0.5 millimeters and 1 millimeter.

Claim 17 (previously presented): A projection device according to claim 7, wherein the exit lens comprises at least four distinct protuberances in each of the first and the second side parts.

Claim 18 (previously presented): A projection device according to claim 17, wherein the exit lens comprises at least six distinct protuberances in each of the first and the second side parts.

Claim 19 (previously presented): A projection device according to claim 1, wherein each of the protuberances produced in the exit surface of the exit lens has an end situated in an immediate vicinity of a periphery of the exit lens.

Claim 20 (previously presented): A projection device adapted to produce a set of light signals, the device comprising:

a light source adapted to emit light;

a reflector disposed to receive and reflect light generated by the light source to form a light beam having an optical axis;

an exit lens disposed in the path of the light beam, the lens having an entry surface facing the light source and an opposing exit surface, the exit surface having a central part which encompasses a region of the exit surface intersected by a vertical plane defined by the optical axis, and first and second side parts, the side parts being laterally disposed on opposing sides of the central part, and

a shield disposed between the reflector and the exit lens in order to produce a cutoff in the light beam produced,

wherein the exit lens further comprises a plurality of modified surface regions having tangent planes that differ from adjacent surfaces of the lens, the modified surface regions being produced solely on the side parts of the exit surface of the lens, each of the modified surface regions diverting in a given direction a part of the light signals encountering the modified surface region.

Claim 21 (previously presented): A projection device according to claim 20, wherein the modified surface regions are produced on at least one of the first and second side parts of the exit surface of the lens.

Claim 22 (previously presented): A projection device according to claim 21, wherein the modified surface regions are produced on both the first and second side parts of the exit surface of the lens.